## **Employment Cost Index Technical Note**

The Employment Cost Index (ECI) is a quarterly index that measures the change in the cost of labor, free from the influence of employment shifts among occupations and industries. It measures that change for total compensation (wages, salaries, and employer costs for employee benefits), for wages and salaries only, and for benefit costs only.

Wages and salaries are defined as the hourly straighttime wage rate, or straight-time earnings divided by the corresponding hours. Straight-time wage and salary rates are total earnings before payroll deductions, excluding premium pay for overtime and for work on weekends and holidays, shift differentials, and nonproduction bonuses such as lump-sum payments.

Benefits covered by the ECI are: Paid leave, supplemental pay, insurance benefits, retirement and savings benefits, legally required benefits, and other benefits.

The ECI provides data for the civilian economy, which includes the private economy and the public sector—excluding farms, private households, the self-employed and the Federal Government. Data are provided separately for the public and private sectors.

Each quarter, straight-time average hourly wage and salary rates and benefit cost data are collected from a probability sample. Data are collected for the pay period including the 12th day of the survey months of March, June, September, and December.

The sample establishments are classified by industry based on the 1987 Standard Industrial Classification (SIC) Manual, as defined by the U.S. Office of Management and Budget. Within an establishment, specific job categories are selected to represent broad occupational definitions. In 1996, some establishments in motor freight transportation and warehousing (SIC 42), transportation by air (SIC 45), and transportation services (SIC 47) were reclassified into air courier services (SIC 4513). These establishments were engaged in the delivery of letters, parcels, and packages, but were also operated as support establishments of enterprises that engaged in furnishing air delivery of individually addressed letters, parcels, and packages. Since the definition for SIC 4513 includes support establishments, these establishments were reclassified. For the ECI, these re-

classifications took effect in the June 1998 reference period.

Fixed employment weights are used each quarter to calculate the most aggregate indexes—civilian, private, and State and local governments. These fixed weights are also used to derive all of the industry and occupation series indexes. Since March 1995, the 1990 employment counts, primarily from the Bureau's Occupational Employment Survey, were used. From June 1986 to December 1994, employment counts from the 1980 Census were used as weights. Prior to June 1986, employment counts from the 1970 Census were used.

For the series based on bargaining status, region, and area size, employment data are not available from the Census. The employment weights are reallocated within these series each quarter based on the current ECI sample. The indexes for these series, consequently, are not strictly comparable to those for the aggregate, industry, and occupation series. A fuller explanation of the calculation of index numbers appears in the article, "Estimation Procedures for the Employment Cost Index," *Monthly Labor Review*, May 1982.

Beginning with the release of ECI data for March 1990, indexes were rebased to June 1989=100. Beginning with the release of ECI data for December 1990, seasonally adjusted data are available for selected ECI series. A description of the rebasing is available in "Employment Cost Index Rebased to June 1989," *Monthly Labor Review*, April 1990.

The costs per hour worked of compensation components, based on March data from the ECI, are published in a separate news release titled, "Employer Costs for Employee Compensation." The cost levels, which are published annually in mid-June, are calculated with current employment weights, rather than the fixed 1990 weights.

More detailed information on the ECI may be obtained by writing to the ECI, Division of Compensation Data Analysis and Planning, Bureau of Labor Statistics, 2 Massachusetts Ave. NE, Room 4175, Washington, DC 20212-0001.

Telephone: (202) 606-6199 E-mail: ocltinfo@bls.gov

Internet: http://stats.bls.gov/ecthome.htm

TABLE A-1. Employment Cost Index for total compensation<sup>1</sup>, wages and salaries, and benefit costs by industry and occupational group, selected periods, 1997-99

(Seasonally adjusted data)

		s (June =100)			Percent c	hanges fo	r 3-months	s ended—		
Industry and occupational group	Dec. 1998	Mar. 1999	June 1997	Sep. 1997	Dec. 1997	Mar. 1998	June 1998	Sep. 1998	Dec. 1998	Mar. 1999
TOTAL COMPENSATION										
Civilian workers	139.7 139.5 139.7	140.2 140.4 140.2	0.8 .5 .8	0.8 .5 .8	1.0 .7 1.1	0.7 .7 .7	0.9 .7 .9	0.9 .7 1.0	0.7 .7 .7	0.4 .6 .4
Industry										
Goods producing <sup>2</sup> Construction <sup>3</sup> Manufacturing Durables Nondurables	137.9 134.6 138.9 139.2 138.4	138.9 135.9 139.8 140.0 139.5	.9 .8 .8 .8	.7 .6 .7 .6	.4 .5 .6 .6	.7 .7 .7 .7	.8 1.2 .6 .6	.7 .4 .7 .7	.5 1.2 .6 .6	.7 1.0 .6 .6
Service producing <sup>4</sup>	140.6 139.5 143.1 135.9	140.7 139.5 142.6 136.9	.8 .6 .6	.8 .8 .7 .9	1.4 1.1 .6 .9	.7 .9 1.6 .9	.9 1.2 .6 .8	1.2 .9 1.7 1.0	.8 .7 1.6 .2	.1 .0 3 .7
estate <sup>3,6</sup>	142.5 142.8	141.5 143.5	.6 .9	.9 .8	3.1 1.2	1.6 .5	1.2 .8	1.9 .9	1.1 .8	7 .5
Nonmanufacturing	139.9	140.2	.8	.8	1.4	.8	.9	1.1	.9	.2
Occupational group										
White collar Blue collar Service <sup>3</sup>	142.3 136.1 137.6	142.3 137.0 139.1	.8 .8 .9	.7 .7 1.5	1.4 .7 .8	.7 .5 .9	1.0 .8 .7	1.1 .7 .8	.9 .7 .5	.0 .7 1.1
WAGES AND SALARIES										
Civilian workers	137.6 138.2 137.5	138.3 139.0 138.1	.9 .6 .9	.8 .8 .9	1.1 .7 1.1	.9 .7 .9	.9 .7 1.0	1.1 .7 1.2	.7 .8 .7	.5 .6 .4
Industry										
Goods producing <sup>2,6</sup>	135.2 129.5 136.8 136.9 137.0	136.3 131.0 137.9 137.9 137.8	1.1 .9 .9 .9	.8 .8 .8 .8	.5 .6 .7 .5	1.1 1.0 1.1 1.1 .9	.9 1.3 .7 .8 .6	.8 .2 1.0 1.0	.7 1.0 .6 .7	.8 1.2 .8 .7 .6
Service producing <sup>4</sup>	138.5 135.1 141.4 135.1	138.9 135.2 140.8 136.3	.9 .7 .3 .9	1.0 .9 .8 .9	1.4 .9 .5 1.0	.9 .5 1.9 .8	.9 .8 .4 .9	1.4 1.0 1.8 1.3	.7 .6 1.5 .1	.3 .1 4 .9
Finance, insurance, and real estate <sup>3,6</sup>	139.8 140.9	137.2 142.1	.6 1.1	.9 1.1	3.3 1.3	1.5 .7	1.7 .9	2.4 1.1	1.2 .7	-1.9 .9
Nonmanufacturing	137.6	137.9	.9	.9	1.4	.8	1.0	1.2	1.0	.2

See footnotes at end of table.

TABLE A-1. Employment Cost Index for total compensation<sup>1</sup>, wages and salaries, and benefit costs by industry and occupational group, selected periods, 1997-99 — Continued

(Seasonally adjusted data)

		s (June =100)			Percent c	hanges fo	r 3-months	s ended—		
Industry and occupational group	Dec. 1998	Mar. 1999	June 1997	Sep. 1997	Dec. 1997	Mar. 1998	June 1998	Sep. 1998	Dec. 1998	Mar. 1999
WAGES AND SALARIES-Continued										
Occupational group										
White collarBlue collar <sup>6</sup> Service <sup>3</sup>	140.1 133.2 135.1	140.2 134.3 136.7	0.8 1.0 .9	1.0 .8 1.6	1.4 .6 .9	0.9 .9 .8	1.0 .8 .8	1.4 .8 .8	0.9 .6 .6	0.1 .8 1.2
BENEFIT COSTS										
Civilian workers State and local government Private industry	144.6 142.7 145.1	145.0 143.5 145.4	.5 .2 .6	.4 .1 .4	.9 .5 1.0	.4 .7 .4	.7 .7 .7	.7 .9 .6	.6 .6 .7	.3 .6 .2
Industry										
Goods producing <sup>2</sup>	143.4 142.8	144.4 143.6	.6 .7	.5 .4	.2 .3	1 1	.5 .4	.4 .3	.3 .1	.7 .6
Service producing <sup>4</sup>	146.1	145.9	.6	.4	1.5	.5	.8	.8	.9	1
Nonmanufacturing	146.1	146.2	.4	.5	1.2	.6	.8	.8	.8	.1
Occupational group										
White collar Blue collar Service <sup>3</sup>	147.7 141.6 144.9	147.7 142.5 146.3	.6 .4 .9	.4 .6 1.2	1.3 .2 .6	.5 .3 .8	.7 .6 .3	.8 .4 .6	.8 .5 .3	.0 .6 1.0

(http://stats.bls.gov/ecthome.htm). All series will continue to be published until further notice.

4 Includes

Includes wages, salaries, and employer costs for employee benefits.
 Includes mining, construction, and manufacturing.
 Average standard errors (SE) for the unadjusted series upon which this series is based exceeded 0.3 percent for 3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site

<sup>4</sup> Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; and service industries.

5 Estimates for transportation and public utilities reflect the changes in SIC coding. See Technical Note for further information.

6 No identifiable seasonality was found for this series.

TABLE A-2. Employment Cost Index for total compensation<sup>1</sup> for civilian and State and local government workers by industry and occupational group, selected periods, 1998-99

	Indexes	(June 19	89=100)		P	ercent cha	anges for-	_	
Industry and occupational group		_		3 m	onths end	ed-	12 n	nonths end	ded-
	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999
Civilian workers	136.3 136.4	139.8 139.5	140.4 140.5	0.8	0.6 .5	0.4 .7	3.3 3.3	3.4 3.1	3.0 3.0
Industry									
Goods producing <sup>2</sup> Manufacturing  Service producing <sup>3</sup> Services  Health services  Hospitals  Educational services  Public administration <sup>4</sup> Nonmanufacturing  Occupational group  White collar  Excluding sales  Professional specialty and technical  Executive, administrative, and managerial  Administrative support, including clerical  Blue collar  Service <sup>5</sup>	135.1 136.4 136.8 138.3 138.0 137.1 137.5 136.4 136.2 137.7 138.1 137.5 139.1 138.0 133.2 136.9	137.9 138.9 140.4 141.7 139.1 140.2 141.0 139.9 139.9 141.4 141.2 141.0 141.8 141.3 136.1 140.0	139.0 139.9 140.9 140.5 141.3 141.3 140.5 140.5 142.5 141.3 143.5 142.5 137.1 141.3	.7 .8 1.0 .5 .1 .3 .4 1.0 .8	.5 .5 .6 .6 .0 .6 .6 .7 .6 .6 .4 .7 .1 .6 .6 .4	.8 .7 .4 .1.0 .8 .2 .6 .4 .4 .7 .2 1.2 .8 .7 .9	2.7 2.9 3.6 3.1 2.1 2.2 2.6 2.6 3.4 3.5 3.4 2.8 4.4 3.3 2.6 3.7	2.8 2.7 3.6 3.0 .9 2.6 2.9 3.6 3.6 3.1 3.1 3.3 3.2 2.8 3.2	2.9 2.6 3.0 2.9 1.8 3.1 2.8 3.2 3.2 3.2 3.3 2.9 3.3 2.9 3.2
State and local government	136.5	139.8	140.5	.6	.6	.5	2.5	3.0	2.9
Industry									
Services  Excluding schools <sup>5,6</sup> Health services  Hospitals  Educational services  Schools  Elementary and secondary  Colleges and universities  Public administration <sup>4</sup>	136.5 136.1 137.9 138.4 136.3 136.6 136.1 137.9 136.4	139.7 138.8 140.7 141.2 139.6 139.9 139.3 141.5 139.9	140.0 139.6 141.2 141.7 139.9 140.2 139.6 141.7 140.8	.4 .6 .5 .6 .3 .3 .2 .5	.5 .1 .3 .4 .6 .6 .6 .4 1.0	.2 .6 .4 .2 .2 .2	2.5 2.7 2.5 2.7 2.4 2.4 2.3 2.7 2.6	2.7 2.6 2.6 2.6 2.7 2.7 2.6 3.1 3.6	2.6 2.4 2.4 2.6 2.6 2.6 2.8 3.2
Occupational group									
White collar	136.1 135.6 137.5 136.9 135.0 139.4	139.3 138.5 141.6 140.3 137.8 143.4	139.8 138.8 142.6 141.4 138.8 144.3	.4 .4 .8 .6 .6	.7 .6 .9 .6 .7	.4 .2 .7 .8 .7	2.4 2.3 2.5 2.7 2.2 2.8	2.8 2.5 3.8 3.1 2.7 4.1	2.7 2.4 3.7 3.3 2.8 3.5

Includes wages, salaries, and employer costs for employee benefits.
 Includes mining, construction, and manufacturing.
 Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; service industries; and

public administration.

4 Includes executive, legislative, judicial, administrative, and regulatory activities of State and local governments, SICs 91 through 96.

<sup>5</sup> Average standard errors (SE) for the series exceed 0.3 percent for 3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site (http://stats.bls.gov/ecthome.htm).

All series will continue to be published until further notice.

6 Formerly called hospitals and other services.

TABLE A-3. Employment Cost Index for total compensation<sup>1</sup> for private industry workers by industry and occupational group, selected periods, 1998-99

	Indexes	(June 19	89=100)		Р	ercent cha	anges for-	_	
Industry and occupational group				3 m	onths end	ed-	12 n	nonths end	ded-
	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999
Private industry workers	136.3 136.4	139.8 139.4	140.4 140.5	0.9 .9	0.6 .4	0.4 .8	3.5 3.4	3.5 3.1	3.0 3.0
Industry									
Goods producing <sup>2</sup> Excluding sales  White collar  Excluding sales	135.1 134.5 137.7 136.3	137.8 137.2 140.2 138.8	138.9 138.3 141.7 140.4	.7 .7 1.1 1.0	.5 .5 .4 .4	.8 .8 1.1 1.2	2.8 2.6 3.1 2.8	2.8 2.7 2.9 2.8	2.8 2.8 2.9 3.0
Blue collar	133.5	136.3	137.1	.5	.6	.6	2.5	2.6	2.7
Construction <sup>3</sup>	130.6	134.3	135.6	.7	.7	1.0	2.7	3.5	3.8
Manufacturing White collar Excluding sales Blue collar Durables Aircraft manufacturing (SIC 3721) White collar Blue collar Nondurables	136.4 138.2 136.5 135.0 136.5 137.2 134.7 139.6 135.9	138.9 140.5 138.7 137.7 139.2 (4) (4) (4) (4) 138.2	139.9 141.8 140.1 138.5 139.9 (4) (4) (4) (4) 139.6	.8 1.1 .9 .5 .6 .2 .3 .0	.5 .3 .3 .7 .5 (4) (4) (4)	.7 .9 1.0 .6 .5 (4) (4) (4) (1.0	2.9 3.2 2.8 2.5 2.6 1 .9 -1.9 3.2	2.7 2.8 2.5 2.5 2.6 ( <sup>4</sup> ) ( <sup>4</sup> ) ( <sup>4</sup> ) 2.8	2.6 2.6 2.6 2.5 ( <sup>4</sup> ) ( <sup>4</sup> ) ( <sup>4</sup> ) 2.7
Service producing <sup>5</sup> Excluding sales  White collar  Excluding sales  Blue collar  Service	136.7 137.4 138.0 139.5 132.1 135.0	140.5 140.6 142.2 142.8 134.8 137.8	140.9 141.7 142.3 143.8 136.2 139.3	1.0 1.0 1.0 1.0 1.0 .9	.6 .4 .7 .4 .4	.3 .8 .1 .7 1.0	3.9 3.9 4.0 4.1 3.0 4.2	3.8 3.3 4.1 3.4 3.0 2.9	3.1 3.1 3.1 3.1 3.1 3.2
Transportation and public utilities <sup>6</sup>	135.8 134.0 137.9 136.6 139.6	139.3 137.3 141.9 141.7 142.1	139.7 136.8 143.4 143.3 143.4	1.2 .4 2.1 1.9 2.3	.6 .4 .9 .9	.3 4 1.1 1.1 .9	3.4 2.6 4.5 4.9 4.0	3.8 2.9 5.0 5.7 4.2	2.9 2.1 4.0 4.9 2.7
Wholesale and retail trade  Excluding sales  Wholesale trade <sup>3</sup> Excluding sales  Retail trade  General merchandise stores <sup>3</sup> Food stores <sup>3</sup>	134.7 135.5 137.7 137.0 133.1 131.2 131.3	138.2 138.8 142.8 141.2 135.6 134.0 132.7	138.9 139.9 142.7 142.4 136.8 135.0 134.3	1.4 1.1 1.9 1.2 1.1 .9	.4 .5 1.4 .9 2 .6	.5 .8 1 .8 .9 .7	3.5 3.9 3.6 3.3 3.6 3.8 2.4	4.0 3.6 5.7 4.3 3.0 3.1 2.6	3.1 3.2 3.6 3.9 2.8 2.9 2.3
Finance, insurance, and real estate <sup>3</sup>	136.7 140.2	142.5 143.3	141.5 145.6	1.6 1.9	1.1 .1	7 1.6	6.3 6.6	5.9 4.1	3.5 3.9
Banking, savings and loan, and other credit agencies <sup>3</sup>	143.3 137.4 140.0	146.7 141.7 142.5	148.8 141.7 144.5	1.9 1.9 1.0	-1.1 1 .6	1.4 .0 1.4	9.7 4.2 2.9	4.3 5.1 2.8	3.8 3.1 3.2
Services	139.3 139.5 138.2 136.7 - 143.4 144.3	142.7 145.9 139.0 139.9 - 147.7 148.5	143.5 147.5 140.5 141.2 - 148.3 149.2	.6 .6 .1 .1 .8 .6	.6 1.7 .0 .6 .6 .5	.6 1.1 1.1 .9 1.3 .4	3.5 4.7 2.0 2.0 2.7 3.5 3.4	3.0 5.3 .7 2.5 3.2 3.6 3.3	3.0 5.7 1.7 3.3 3.6 3.4 3.4

See footnotes at end of table.

TABLE A-3. Employment Cost Index for total compensation<sup>1</sup> for private industry workers by industry and occupational group, selected periods, 1998-99 — Continued

	Indexes	(June 19	89=100)		F	ercent cha	anges for-	_	
Industry and occupational group	M	D	N4	3 m	onths end	ed-	12 n	nonths end	ded-
	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999
Industry-Continued									
Nonmanufacturing industries	136.0	139.7	140.3	1.0	0.6	0.4	3.7	3.7	3.2
White collar	137.9	142.0	142.3	1.0	.6	.2	3.9	4.0	3.2
Excluding sales	139.3	142.7	143.7	1.0	.5	.7	4.0	3.5	3.2
Blue collar	131.0	134.0	135.2	.7	.4	.9	2.7	3.0	3.2
Service	134.9	137.7	139.2	.8	.6	1.1	4.3	2.9	3.2
Occupational group									
White collar	138.1	142.0	142.4	1.0	.6	.3	3.8	3.9	3.1
Excluding sales	138.8	141.9	143.0	1.0	.4	.8	3.8	3.3	3.0
Professional specialty and technical	138.8	142.6	142.9	.7	.7	.2	3.1	3.5	3.0
Executive, administrative, and managerial	139.4	141.8	143.7	1.5	1	1.3	4.8	3.2	3.1
Sales <sup>3</sup>	135.3	142.6	139.6	1.3	1.6	-2.1	4.0	6.8	3.2
Administrative support, including									
clerical	138.2	141.4	142.6	.9	.6	.8	3.4	3.2	3.2
Blue collar	133.1	135.9	136.9	.6	.5	.7	2.7	2.7	2.9
Precision production, craft, and repair	132.9	136.1	137.2	.8	.5	.8	2.5	3.2	3.2
Machine operators, assemblers, and	.02.0							0.2	0.2
inspectors	133.6	136.8	137.3	.5	.8	.4	2.8	2.9	2.8
Transportation and material moving	129.3	130.7	131.6	.3	.0	.7	2.5	1.4	1.8
Handlers, equipment cleaners, helpers, and	0.0								
laborers	137.0	139.2	141.0	.9	.5	1.3	3.2	2.5	2.9
Service	135.3	138.0	139.5	.9	.5	1.1	4.2	2.9	3.1
Production and nonsupervisory									
occupations <sup>7</sup>	135.3	139.0	139.3	.8	.7	.2	3.2	3.6	3.0

<sup>1</sup> Includes wages, salaries, and employer costs for employee benefits.

1999 have been suppressed. Indexes and percent changes reflecting the corrected data will be available May 18, 1999.

5 Includes transportation, communications, and public utilities; wholesale

Includes mayes, salaries, and employer code is surject, 2
Includes mining, construction, and manufacturing.

Average standard errors (SE) for the series exceed 0.3 percent for 3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site (http://stats.bls.gov/ecthome.htm).

All series will continue to be published until further notice.

<sup>4</sup> Due to an error in the data, estimates for December 1998 and March

and retail trade; finance, insurance, and real estate; and service industries.

6 Estimates for transportation and public utilities reflect the changes in SIC coding. See Technical Note for further information.

7 This series has the come industries and reserved.

This series has the same industry and occupational coverage as the Hourly Earnings Index, which was discontinued in January 1989.

NOTE: Dashes indicate data not available.

TABLE A-4. Employment Cost Index for total compensation<sup>1</sup> for private industry workers by bargaining status, region, and area, selected periods, 1998-99

	Indexes	(June 19	89=100)		P	ercent cha	anges for-	_	
Bargaining status, region, and area		_		3 m	onths end	ed-	12 n	nonths end	ded-
	Mar.	Dec.	Mar.	Mar.	Dec.	Mar.	Mar.	Dec.	Mar.
	1998	1998	1999	1998	1998	1999	1998	1998	1999
Bargaining status									
Union	134.0 131.8	137.5 135.3	138.0 135.6	0.4	0.5 .5	0.4 .2	2.3 2.2	3.0 2.8	3.0 2.9
Goods-producing industries <sup>2</sup>	132.7	136.5	136.8	.2	.7	.2	2.1	3.0	3.1
Service-producing industries	135.3	138.5	139.2	.6	.4	.5	2.6	3.0	2.9
Manufacturing	133.6	136.9	137.0	.2	.7	.1	2.1	2.7	2.5
	133.1	136.4	136.5	.1	.7	.1	2.0	2.6	2.6
	133.9	137.4	138.1	.5	.4	.5	2.5	3.2	3.1
Nonunion	136.7	140.1	140.8	1.0	.6	.5	3.7	3.5	3.0
	133.8	136.3	137.6	.9	.6	1.0	3.0	2.8	2.8
Goods-producing industries <sup>2</sup>	135.9	138.3	139.7	.9	.4	1.0	3.0	2.7	2.8
Service-producing industries	136.7	140.6	141.1	1.0	.6	.4	4.0	3.9	3.2
Manufacturing	137.2	139.4	140.7	1.0	.4	.9	3.1	2.6	2.6
	136.0	138.3	139.5	.9	.7	.9	2.9	2.6	2.6
	136.3	140.0	140.6	1.0	.6	.4	4.0	3.8	3.2
Region <sup>3</sup>									
Northeast South Midwest West	136.0	139.5	140.5	.7	.6	.7	2.9	3.3	3.3
	135.5	138.1	139.1	.7	.4	.7	3.6	2.6	2.7
	138.3	141.4	141.7	1.0	.4	.2	3.8	3.3	2.5
	135.2	140.0	140.3	1.3	1.1	.2	3.8	4.9	3.8
Area									
Metropolitan Other	136.4	139.8	140.4	1.0	.5	.4	3.6	3.5	2.9
	135.9	139.4	140.5	.4	.9	.8	3.4	3.0	3.4

<sup>1</sup> Includes wages, salaries, and employer costs for employee benefits.

Texas, Virginia, and West Virginia; Midwest-Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; and West-Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

NOTE: The indexes for these series are not strictly comparable to those for the aggregate, occupation, and industry series.

Includes wages, salaties, and employer code for employer 2 Includes mining, construction, and manufacturing.

The regional coverage is as follows: Northeast—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; South—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee,

TABLE A-5. Employment Cost Index for wages and salaries for civilian and State and local government workers by industry and occupational group, selected periods, 1998-99

	Indexes	(June 19	89=100)		P	ercent cha	anges for-	_	
Industry and occupational group	N4	D		3 m	onths end	ed-	12 n	nonths end	ded-
	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999
Civilian workers  Excluding sales occupations	134.0 134.0	137.7 137.3	138.4 138.4	0.9 .9	0.7 .5	0.5 .8	3.7 3.7	3.7 3.4	3.3 3.3
Industry									
Goods producing <sup>1</sup> Manufacturing  Service producing <sup>2</sup> Services  Health services  Hospitals  Educational services  Public administration <sup>3</sup> Nonmanufacturing  Occupational group  White collar  Excluding sales  Professional specialty and technical  Executive, administrative, and managerial  Administrative support, including clerical  Blue collar  Service <sup>4</sup>	132.0 133.7 134.8 136.9 136.2 134.2 136.3 132.7 134.0 135.6 136.1 135.8 137.4 135.0 130.4 133.7	135.2 136.8 138.7 140.5 137.6 137.1 140.0 135.9 137.8 139.7 139.5 139.4 140.3 138.6 133.3 137.0	136.3 137.9 139.2 141.5 138.8 138.1 140.2 136.9 138.4 140.1 140.5 140.1 141.6 140.0 134.5 138.3	1.1 1.1 .9 .7 .6 .4 .3 1.0 .9	.6 .6 .7 .6 .0 .5 .6 .8 .6 .6 .5 .6 .1 .8 .5 .7	.8 .8 .4 .7 .9 .7 .1 .7 .4 .3 .7 .5 .9 1.0 .9	3.4 3.6 3.9 3.7 2.9 2.4 2.9 2.9 3.8 3.9 3.3 4.9 3.5 3.3 4.0	3.5 3.8 3.3 1.6 2.6 3.0 3.4 3.8 4.0 3.5 3.3 3.5 3.7 3.1 3.3	3.3 3.1 3.3 3.4 1.9 2.9 2.9 3.2 3.3 3.3 3.2 3.2 3.1 3.7 3.1 3.4
State and local government	135.1	138.5	139.0	.5	.7	.4	2.8	3.1	2.9
Industry									
Services  Excluding schools <sup>4,5</sup> Health services  Hospitals  Educational services  Schools  Elementary and secondary  Colleges and universities  Public administration <sup>3</sup>	135.7 135.4 136.3 136.3 135.7 135.8 136.0 135.2 132.7	139.2 138.2 139.2 139.1 139.3 139.5 139.3 139.6 135.9	139.5 139.0 139.7 139.7 139.5 139.6 139.5 139.6 136.9	.3 .7 .7 .8 .3 .2 .2 .4	.6 .3 .4 .4 .7 .7 .4 1.4	.2 .6 .4 .4 .1 .1 .0	2.7 3.2 3.2 3.3 2.7 2.7 2.7 2.8 2.9	2.9 2.8 2.9 2.9 3.0 3.0 2.7 3.7 3.4	2.8 2.7 2.5 2.5 2.8 2.8 2.6 3.3 3.2
Occupational group									
White collar	135.0 135.5 135.1 133.0 133.1 136.5	138.5 138.7 139.3 136.5 136.0 140.0	138.9 138.9 140.1 137.4 136.9 141.1	.4 .3 .7 .5 .6 1.0	.7 .6 .9 .8 .7	.3 .1 .6 .7 .7	2.7 2.7 2.9 2.9 2.7 3.1	3.0 2.7 3.9 3.2 2.8 3.6	2.9 2.5 3.7 3.3 2.9 3.4

3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site (http://stats.bls.gov/ecthome.htm).

<sup>1</sup> Includes mining, construction, and manufacturing.
2 Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; service industries; and

public administration.

3 Includes executive, legislative, judicial, administrative, and regulatory activities of State and local governments, SICs 91 through 96.

4 Average standard errors (SE) for the series exceed 0.3 percent for

All series will continue to be published until further notice.

<sup>5</sup> Formerly called hospitals and other services.

TABLE A-6. Employment Cost Index for wages and salaries for private industry workers by industry and occupational group, selected periods, 1998-99

	Indexes	(June 19	89=100)		P	ercent cha	anges for-		
Industry and occupational group				3 m	onths end	ed-	T	nonths end	ded-
	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999		Dec. 1998	Mar. 1999
Private industry workers	133.7 133.7	137.4 136.9	138.1 138.2	1.1 1.0	0.6 .4	0.5 .9		3.9 3.4	3.3 3.4
Industry									
Goods producing <sup>1</sup>	132.0	135.2	136.3	1.1	.7	.8	3.5	3.5	3.3
Excluding sales	131.3	134.4	135.5	1.0	.6	.8	3.4	3.4	3.2
White collar	135.0	138.2	139.4	1.6	.6	.9	3.8	4.0	3.3
Excluding sales	133.3	136.4	137.8	1.3	.5	1.0	3.4	3.6	3.4
Blue collar	130.1	133.3	134.3	.7	.8	.8	3.3	3.2	3.2
Construction <sup>2</sup>	126.0	129.3	130.7	.9	.6	1.1	3.3	3.5	3.7
Manufacturing	133.7	136.8	137.9	1.1	.6	.8	3.6	3.5	3.1
White collar	135.6	139.0	140.1	1.5	.5	.8		4.0	3.3
Excluding sales	133.8	137.1	138.3	1.2	.6	.9		3.7	3.4
Blue collar	132.3	135.3	136.3	.8	.7	.7		3.1	3.0
Durables	133.4	136.9	137.9	1.1	.7	.7		3.8	3.4
Aircraft manufacturing (SIC 3721)	135.1	(3)	(3)	.8	(3)	(3)		(3)	$\binom{3}{3}$
White collar	131.2	(3)	(3)	1.1	(3)	(3)		(3)	(3)
Blue collar	140.1	(3)	(3)	.4	(3)	(3)		(3)	(3)
Nondurables	134.2	136.8	138.0	1.2	.6	.9	3.8	3.2	2.8
Service producing <sup>4</sup>	134.4	138.4	138.9	1.0	.6	.4	4.2	4.0	3.3
Excluding sales	135.2	138.5	139.8	1.0	.4	.9		3.4	3.4
White collar	135.7	140.1	140.3	1.0	.6	.1	4.3	4.3	3.4
Excluding sales	137.3	140.7	142.0	1.0	.4	.9	4.4	3.5	3.4
Blue collar	130.2	132.9	134.4	1.0	.4	1.1	3.3	3.1	3.2
Service	132.1	135.2	136.7	.8	.7	1.1	4.4	3.2	3.5
Transportation and public utilities <sup>5</sup>	132.1	135.1	135.4	.6	.6	.2	3.0	2.9	2.5
Transportation <sup>2,5</sup>	130.1	132.9	132.3	.5	.4	5	2.8	2.6	1.7
Public utilities	134.5	137.8	139.2	.7	1.0	1.0	3.4	3.2	3.5
Communications	134.4	138.0	139.4	.3	1.0	1.0	3.5	3.0	3.7
Electric, gas, and sanitary services	134.7	137.4	138.9	1.4	.8	1.1	3.3	3.4	3.1
Wholesale and retail trade	133.3	137.0	137.7	1.3	.3	.5		4.1	3.3
Excluding sales	134.7	138.2	139.5	1.1	.4	.9		3.8	3.6
Wholesale trade <sup>2</sup>	136.2	141.3	140.7	1.9	1.4	4		5.8	3.3
Excluding sales	136.5	140.8	141.9	1.1	.9	.8		4.3	4.0
Retail trade	131.9	134.8	136.2	1.0	3	1.0		3.2	3.3
General merchandise stores <sup>2</sup> Food stores <sup>2</sup>	129.4 129.0	133.0 130.5	133.7 131.8	.8 1.6	.6 9	.5 1.0		3.6 2.8	3.3 2.2
Finance, insurance, and real estate <sup>2</sup>	132.6	139.8	137.2		1.2	1.0	65	7.0	
Excluding sales	132.6	139.8	137.2	1.5 1.7	1.2 1	-1.9 1.0		4.5	3.5 3.8
Banking, savings and loan, and other									
credit agencies <sup>2</sup>	140.9	144.4	146.1	1.9	-1.8	1.2	11.9	4.4	3.7
Insurance <sup>2</sup>	133.1	138.5	137.4	2.2	1	8		6.4	3.2
Excluding sales	134.7	137.9	139.1	.7	1.0	.9	2.4	3.1	3.3
Services	137.2	140.8	142.2	.7	.6	1.0	4.1	3.4	3.6
Business services <sup>2</sup>	137.6	144.1	145.4	.2	1.6	.9	4.7	5.0	5.7
Health services	136.2	137.4	138.7	.6	1	.9	2.8	1.5	1.8
Hospitals	133.6	136.5	137.6	.3	.5	.8	2.2	2.5	3.0
Nursing homes	_			1.3	.5	1.4	3.3	3.7	3.8
Educational services	139.1	143.5	143.9	.5	.5	.3	3.4	3.7	3.5
Colleges and universities	139.1	143.6	144.1	.3	.6	.3	3.3	3.5	3.6

See footnotes at end of table.

TABLE A-6. Employment Cost Index for wages and salaries for private industry workers by industry and occupational group, selected periods, 1998-99 — Continued

	Indexes	(June 19	89=100)		F	ercent ch	anges for-	_	
Industry and occupational group				3 m	onths end	ed-	12 n	nonths end	ded-
	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999
Industry–Continued									
Nonmanufacturing industries	133.4	137.4	137.9	1.0	0.7	0.4	4.1	4.0	3.4
White collar	135.5	139.8	140.1	1.0	.6	.2	4.3	4.3	3.4
Excluding sales	136.9	140.3	141.6	1.0	.4	.9	4.3	3.5	3.4
Blue collar	128.2	131.1	132.4	.9	.5	1.0	3.3	3.1	3.3
Service	132.0	135.1	136.5	.8	.7	1.0	4.4	3.2	3.4
Occupational group									
White collar	135.7	139.9	140.3	1.1	.6	.3	4.2	4.2	3.4
Excluding sales	136.3	139.7	141.0	1.1	.4	.9	4.2	3.6	3.4
Professional specialty and technical	135.9	139.7	140.7	.8	.7	.7	3.7	3.6	3.5
Executive, administrative, and managerial	137.8	140.5	141.9	1.5	3	1.0	5.2	3.5	3.0
Sales <sup>2</sup>	133.1	141.3	137.3	1.3	1.8	-2.8	4.1	7.5	3.2
Administrative support, including									
clerical	135.3	138.9	140.4	1.0	.7	1.1	3.6	3.7	3.8
Blue collar	130.2	133.2	134.3	.9	.6	.8	3.3	3.2	3.1
Precision production, craft, and repair	129.8	133.0	134.3	.9	.5	1.0	3.2	3.3	3.5
Machine operators, assemblers, and									
inspectors	131.6	134.9	135.7	.8	.8	.6	3.5	3.3	3.1
Transportation and material moving	125.9	127.8	129.1	.6	.2	1.0	2.9	2.2	2.5
Handlers, equipment cleaners, helpers, and	120.0	127.0	120.1		-				2.0
laborers	133.2	135.8	137.3	1.1	.5	1.1	3.7	3.0	3.1
Service	132.1	135.3	136.7	.8	.7	1.0	4.3	3.2	3.5
Production and nonsupervisory									
occupations <sup>6</sup>	132.3	136.4	136.8	.8	.9	.3	3.6	4.0	3.4

NOTE: Dashes indicate data not available.

Includes mining, construction, and manufacturing.
 Average standard errors (SE) for the series exceed 0.3 percent for 3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted to the property of the property o series) will be available on the Internet site (http://stats.bls.gov/ecthome.htm).

All series will continue to be published until further notice.

3 Due to an error in the data, estimates for December 1998 and March 1999 have been suppressed. Indexes and percent changes reflecting the

corrected data will be available May 18, 1999.

4 Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; and service industries.

5 Estimates for transportation and public utilities reflect the changes in SIC adding. Sex Tachical Note for further information.

SIC coding. See Technical Note for further information.

6 This series has the same industry and occupation.

This series has the same industry and occupational coverage as the Hourly Earnings Index, which was discontinued in January 1989.

TABLE A-7. Employment Cost Index for wages and salaries for private industry workers by bargaining status, region, and area, selected periods, 1998-99

	Indexes	(June 19	89=100)		P	ercent ch	anges for-	_	
Bargaining status, region, and area		_		3 m	onths end	ed-	12 n	nonths end	ded-
	Mar.	Dec.	Mar.	Mar.	Dec.	Mar.	Mar.	Dec.	Mar.
	1998	1998	1999	1998	1998	1999	1998	1998	1999
Bargaining status									
Union	129.6	133.1	133.6	0.5	0.5	0.4	2.9	3.3	3.1
	127.2	130.6	131.2	.4	.5	.5	2.9	3.1	3.1
Goods-producing industries <sup>1</sup>	127.9	131.7	132.3	.6	.5	.5	3.1	3.6	3.4
Service-producing industries	131.8	134.8	135.4	.5	.5	.4	2.8	2.7	2.7
Manufacturing	129.6	133.0	133.6	.8	.6	.5	3.2	3.4	3.1
	129.0	132.4	133.0	.5	.8	.5	2.9	3.1	3.1
	129.6	133.1	133.7	.4	.5	.5	2.8	3.1	3.2
Nonunion	134.5	138.3	139.0	1.1	.7	.5	4.2	4.0	3.3
	132.0	134.8	136.2	1.1	.6	1.0	3.5	3.2	3.2
Goods-producing industries <sup>1</sup>	133.6	136.5	137.8	1.2	.6	1.0	3.6	3.4	3.1
Service-producing industries	134.6	138.8	139.3	1.1	.7	.4	4.3	4.2	3.5
Manufacturing	135.1	138.2	139.4	1.2	.7	.9	3.7	3.5	3.2
	134.4	137.2	138.5	1.1	.7	.9	3.5	3.2	3.1
	134.0	138.0	138.6	1.1	.7	.4	4.3	4.1	3.4
Region <sup>2</sup>									
Northeast South Midwest West	132.6	136.4	137.1	.8	.7	.5	3.0	3.6	3.4
	134.0	136.7	137.9	.8	.1	.9	4.3	2.8	2.9
	134.7	138.0	138.9	1.3	.4	.7	4.4	3.8	3.1
	132.9	138.4	138.2	1.3	1.2	1	4.1	5.5	4.0
Area									
MetropolitanOther	133.8	137.7	138.3	1.1	.6	.4	4.0	4.1	3.4
	132.5	136.0	137.1	.4	1.0	.8	3.8	3.0	3.5

<sup>1</sup> Includes mining, construction, and manufacturing.

Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; and West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

NOTE: The indexes for these series are not strictly comparable to those for the aggregate, occupation, and industry series.

<sup>&</sup>lt;sup>2</sup> The regional coverage is as follows: Northeast—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; South—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; Midwest—Illinois, Indiana, Iowa,

TABLE A-8. Employment Cost Index for benefits for civilian, State and local government, and private industry workers by industry, occupational group, and bargaining status, selected periods, 1998-99

	Indexes	(June 19	39=100)		F	ercent ch	anges for-	_	
Industry, occupational group, and		_		3 m	onths end	ed-	12 n	nonths end	ded-
bargaining status	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999	Mar. 1998	Dec. 1998	Mar. 1999
Civilian workers	142.0 139.7 142.6	144.7 142.7 145.2	145.3 143.6 145.8	0.6 .8 .6	0.5 .4 .5	0.4 .6 .4	2.2 1.7 2.3	2.6 3.0 2.4	2.3 2.8 2.2
Industry									
Goods producing <sup>1</sup> Service producing <sup>2</sup>	141.5 142.7	143.2 145.7	144.3 146.1	.0 .9	.1 .6	.8 .3	1.1 3.0	1.2 3.0	2.0 2.4
Manufacturing	141.7 141.7 142.9 139.0 142.7	142.7 ( <sup>3</sup> ) ( <sup>3</sup> ) ( <sup>3</sup> ) ( <sup>3</sup> ) 145.8	143.6 ( <sup>3</sup> ) ( <sup>3</sup> ) ( <sup>3</sup> ) 146.3	.0 9 -1.3 4	.1 (3) (3) (3) (3)	.6 (3) (3) (3) (3)	1.3 -4.6 -2.7 -7.9 2.7	.7 (3) (3) (3) (3) 3.0	1.3 ( <sup>3</sup> ) ( <sup>3</sup> ) ( <sup>3</sup> ) 2.5
Occupational group									
White collar Blue collar Service <sup>4</sup>	144.7 139.1 143.3	147.4 141.6 144.8	147.9 142.2 146.3	.9 .1 .9	.5 .4 .1	.3 .4 1.0	2.8 1.4 3.6	2.8 1.9 2.0	2.2 2.2 2.1
Bargaining status									
Union Nonunion	142.1 142.5	145.5 144.9	145.8 145.6	.1 .7	.3 .5	.2 .5	1.4 2.6	2.5 2.4	2.6 2.2

<sup>1</sup> Includes mining, construction, and manufacturing.
2 Includes transportation, communications, and public utilities;
wholesale and retail trade; finance, insurance, and real estate; and service

industries.

3 Due to an error in the data, estimates for December 1998 and March 1999 have been suppressed. Indexes and percent changes reflecting the corrected data will be available May 18, 1999.

<sup>4</sup> Average standard errors (SE) for the series exceed 0.3 percent for 3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site (http://stats.bls.gov/ecthome.htm). All series will continue to be published until further notice.

 ${\it TABLE~A-9}. \textbf{ Employment Cost Index seasonal factors for total compensation, wages and salaries, and benefit costs by industry and occupational group, 1999}$ 

Industry and occupational group	March	June	September	December
TOTAL COMPENSATION				
Industry				
Goods producing				
Construction	99.776	100.183	100.278	99.764
Manufacturing Durables	99.944	100.028	100.062	99.977
Nondurables	100.093	100.028	99.962	99.876
Nondulables	100.055	100.070	33.302	33.070
Service producing				
Transportation and public utilities	100.177	99.940	100.020	99.869
Wholesale trade	100.066	100.116	99.996	99.823
Retail trade	99.919	100.059	100.254	99.773
Services	100.008	99.941	100.102	99.958
Nonmanufacturing industries	100.036	99.975	100.142	99.854
Occupational group				
White collar	100.088	100.012	100.095	99.806
Blue collar	99.962	100.012	100.093	99.864
	00.002			
WAGES AND SALARIES				
State and local government	99.980	99.453	100.334	100.234
Industry				
Goods producing				
Construction	99.774	100.168	100.243	99.811
Manufacturing				
Nondurables	100.115	100.054	99.944	99.886
Service producing	100.031	99.984	100.076	99.917
Transportation and public utilities	100.111	99.867	99.995	100.033
Wholesale trade	99.911	100.153	100.010	99.918
Retail trade	99.912	100.072	100.219	99.805
Services	100.036	99.927	100.087	99.958
Nonmanufacturing industries	100.011	99.993	100.120	99.872
Occupational group				
White collar	100.040	99.998	100.089	99.877
Service	99.978	99.854	100.061	100.112

See footnote at end of table.

TABLE A-9. Employment Cost Index seasonal factors for total compensation, wages and salaries, and benefit costs by industry and occupational group, 1999 — Continued

Industry and occupational group	March	June	September	December
BENEFIT COSTS				
State and local government	100.053	99.767	100.205	99.971
Industry				
Goods producing	99.918 99.979	100.132 100.120	100.079 99.992	99.894 99.928
Service producing	100.119	100.054	100.077	99.753
Nonmanufacturing industries	100.079	100.052	100.049	99.827
Occupational group				
White collar	100.154 99.806 99.968	100.079 100.101 99.969	100.006 100.096 100.119	99.767 100.015 99.935

NOTE: The factors shown in this table are for seasonal adjustments that are made directly to Employment Cost Index components. Seasonal factors for selected higher level indexes are not shown because they are implicit factors derived from lower level components. Also not shown are factors for components with no identifiable or stable seasonality.